

In the specification:

Please replace the paragraphs beginning on page 6, line 4 with the following amended paragraphs:

The unidirectional communication link may be physically unidirectional, as in a transmission from a broadcast tower, or logically unidirectional, as in a unidirectional communication protocol. It is assumed herein that programming code for ~~Java~~ JAVA programming language classes is pushed to a receiver. However, the disclosed principles and techniques are equally applicable to ~~Objective-C~~ OBJECTIVE-C, C++, SmallTalk, Modula-3, Component Object Model (COM), and other object oriented programming languages and environments, and the invention is not limited in this respect. It will be appreciated by one skilled in the art that other data structures, besides classes, may be pushed as well. For example, a Dynamic Link Library (DLL), or equivalent, having known entry points and structure may be used.

In an object oriented programming environment such as ~~Java~~ the one provided by the JAVA programming language, a class encapsulates data, methods and procedures that operate on data input to an instance of the class, and produce appropriate output. Classes are usually collected into libraries for solving particular problems. ~~Java~~ JAVA programming language libraries are called "Java archives," or JAR files. To minimize memory requirements and facilitate a more dynamic programming model, Java execution environments defer loading a class into system memory until the class is utilized by an executing application program.

When a class is referenced, if it is not already loaded, it is dynamically loaded and made available to an executing program. Loading requires that a standard location (or locations) be searched for the references class, e.g., to locate a JAR file or other storage of class definition. In ~~Java~~ the JAVA programming language, an environment variable (or equivalent) called "CLASSPATH" is expected to exist and indicate a search path for locating class definitions. For example, CLASSPATH may point to directories/folders containing class definitions and/or JAR files, or directly reference a data file storing archives therein. If a class cannot be found and loaded after searching the CLASSPATH environment, loading fails and the corresponding call within the application program fails.

Thus, in one embodiment, to load dynamically loadable program code over a push-type networking environment, a manifest is first prepared **300** corresponding to the dynamically loadable code. The manifest comprises an identifier **302** that identifies the class definition so that the class can be properly loaded during execution of an application program. In the JAVA programming language Java, the class definition identifier comprises a package name followed by a relative class name. For example, the “String” class is part of the “java.lang” package, and is therefore properly identified as “java.lang.String”. Other programming environments may utilize other identifying data, such as the name of the class, and/or a globally unique identifier (GUID) for the class, and/or a class context, and/or class dependencies.

Please replace the paragraph beginning on page 8, line 21 with the following amended paragraph:

A Java JAVA programming language application program may be executed **410**. When it references **412** a class for the first time, a search **414** may be performed to locate the class, e.g., the CLASSPATH environment is searched. Assuming searching the CLASSPATH fails, a search **416** may be performed to locate the class among pushed class identifiers stored **408** within the local memory. If an appropriate class identifier(s) is located, the schedule corresponding to the identifier may be inspected **418**. Dynamically loadable programming code, e.g., a Java JAVA programming language class file, may then be retrieved **420** from a unidirectional communication link according to the schedule. If SAP/SDP type broadcasting is in use, the dynamically loadable programming code may be retrieved from the multicast address / port indicated in the session’s announcement.

Please replace the paragraph beginning on page 10, line 1 with the following amended paragraph:

In addition, retrieval and loading may be performed transparently by an operating system, programming environment, or the application program depending on receiver environment configuration. For example, a Java JAVA programming language runtime environment may determine a class needs to be retrieved **420** from a unidirectional

communication link, and then load the class **422** without an application program becoming aware of the retrieval process.

Please replace the paragraph beginning on page 11, line 19 with the following amended paragraph:

After the purchase transaction **506**, the computing device retrieves **508** an appropriate decryption class from the unidirectional communication link in accordance with the push schedule. The decryption class may be installed **516** as indicated by the manifest, e.g., it may be installed either permanently or temporarily. In a ~~Java-type~~ JAVA programming language execution environment, the decryption class is installed within the CLASSPATH environment. The decryption class is then executed **512** by the control program to decrypt desired data.